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Annual Report

1966

New Brunswick Industrial Safety Council

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NEW BRUNSWICK
INDUSTRIAL SAFETY COUNCIL

FREDERICTON, NEW BRUNSWICK

The Honourable K. J. Webber
Minister of Labour
Province of New Brunswick

Dear Sir:

The Fourth Annual Report of the New Brunswick Industrial Safety Council indicates that the Provincial accident frequency has been held at the 1965 level in spite of increased industrial activity necessitating an abnormally high use of inexperienced help.

If it were not for the high number of fatal accidents experienced in 1966, I feel we could be justly proud of our accomplishments during the year. Unfortunately, only fatal accidents are brought to the attention of the general public; details of other injuries, no matter how serious, are usually confined to the individuals concerned.

The fact that the majority of injuries were caused by "Unsafe Acts" rather than "Unsafe Conditions" indicates that the Inspection Branch of the Department of Labour is doing a good job. Also encouraging is the fact that Labour Organizations are becoming more safety conscious, and if they can instill this feeling into their members it should greatly reduce the "Unsafe Acts".

Many Employers are taking active safety measures and are reaping the multiple benefits of an adequate safety program properly enforced. Some remain indifferent and accept accidents as an inevitable occupational hazard; I believe that with time and patience many in this latter category can be convinced that their philosophy is wrong. It is this latter group which presents a challenge to our Field Representatives.

I wish to compliment the Staff of the New Brunswick Industrial Safety Council for their tireless efforts expended on behalf of safety education, and the members of the Council for their continued support and valued guidance.

On behalf of the Council I extend our sincere thanks to the Department of Labour, the New Brunswick Workmen's Compensation Board and the Department of Finance for their valuable co-operation.

Respectfully submitted,

H. S. HOWCROFT
Chairman

NEW BRUNSWICK INDUSTRIAL SAFETY COUNCIL

ANNUAL REPORT 1966

The New Brunswick Industrial Safety Council operated successfully during 1966 with good attendance at all meetings. The regular Council met four times during the year and the Executive Committee met seven times in addition to this.

The present membership is as follows:

Representing Labour	**Address**	**Industrial Class**
T. M. McCarthy	Red Bank	*Mining*
Aurele Ferlatte	Dalhousie	*Forest Products*
Edwin Booth	Lewisville	*Manufacturing*
Leo McCluskey	Saint John	*Construction*
D. W. MacKenzie	Moncton	*Transportation*
Representing Management		
Douglas Flower	Minto	*Mining*
J. R. Miller	Bathurst	*Forest Products*
H. S. Howcroft (*Chairman*)	Fredericton	*Manufacturing*
Paul Levesque	Fredericton	*Construction*
F. E. Daniels	Saint John	*Transportation*
Representing Government		
R. G. Jones	Saint John	*Workmen's Compensation Board*
R. P. Campbell	Fredericton	*Department of Labour*
Dr. C. W. Kelly	Fredericton	*Department of Health*
R. W. Warren	Fredericton	*Department of Natural Resources*
G. W. Crandlemire	Fredericton	*N.B. Industrial Safety Council*

PERSONNEL

Two new field representatives were added during the year. On January 1, Donald Gruchy took over part of the City of Saint John area and Charlotte County, and in March, Lionel Leger was hired for the Gloucester, Northumberland Counties area. On the debit side, John Sinclair left in August to go with the Federal Department of Northern Affairs and National Resources as their Safety Programmes Officer.

A list of staff at the end of the year follows:

E. P. McCoy, *Statistician*
Miss J. Swan, *Secretary*
Miss F. McNamara, *Stenographer*

Field Representatives

R. E. Beaton, Moncton
G. H. Bovaird, Saint John
G. D. Gruchy, Saint John
K. E. Hall, Fredericton
V. L. Buckley, Fredericton
F. D'Amour, Dalhousie
L. J. Leger, Bathurst

During the year we continued a program of upgrading the qualifications of our staff by various courses and seminars. Two field representatives took the Lateiner Method of Accident Control course. Four received First Aid training, one qualified in the Neil George "Principles of Safety", one attended the CISA Safety Seminar at the University of Waterloo, one attended a management course put on by the National Safety Council. Two are working on correspondence courses from CISA on "Accident Prevention Fundamentals", and one is taking a Safety Management Course by correspondence from the University of Wisconsin Extension Division.

Our Council was represented at the Prince Edward Island safety convention, the Ontario Industrial Accident Prevention Associations convention, Canadian Industrial Safety Association convention, Quebec Pulp and Paper Safety Association convention, National Safety Congress, Maine State Safety Conference, and Nova Scotia Accident Prevention convention.

We have a highly capable and competent field staff. They are hard-working, dedicated and enthusiastic. We are now well equipped to assist management in all industries to initiate and carry out safety programs that will make it possible for anyone to lessen the number and severity of their work injuries. We can instruct supervisors and foremen, and help to instill desirable attitudes and methods of working. This we are prepared to do with the co-operation of employers.

MASS MEDIA

This year under Mr. Sinclair's direction we initiated a mass media campaign in an attempt to create widespread interest in industrial safety and to foster desirable attitudes among all workers toward safety.

We have been greatly encouraged by the results achieved. We were able to obtain two or three prints of 60-second television commercials that had been produced by the Construction Safety Association of Ontario, and we produced two new ones of our own. We also produced two radio tapes. The program including television shorts and the radio tapes was built around the theme, "Your Future is in Your Hands—Work Safely".

The television prints were shown three times weekly on station CHSJ-TV Saint John and CKCW-TV in Moncton and the French versions were shown over the CBC TV station in Moncton and New Carlisle, Quebec.

We received fine co-operation from the radio stations throughout the Province; they played our radio safety tapes with great frequency on a regular basis as a public service feature. This played a big part in awakening the interest of the general public in the safety of workmen.

We made use of billboards in several areas of the Province during the summer months and messages were put up in buses in Moncton and Saint John area. Matches and place mats were used to publicize the theme, and we feel that a thorough coverage was achieved.

A number of instructional pamphlets were printed or purchased and distributed to employees when safety training was given. The regular poster service was maintained.

CONVENTION

Our annual convention was held at the Gowan Brae Golf and Country Club in Bathurst on Thursday and Friday, May 5 and 6, 1966. Attendance was much greater than expected and at times overtaxed the capacity of the Club.

The New Brunswick Forest Industries Safety Association Inc. met separately on Thursday morning and the mining companies met together on Friday afternoon. The City of Bathurst sponsored the banquet for the delegates on Thursday evening and Bathurst Paper Ltd. sponsored the reception prior to the banquet. Brunswick Mining and Smelting Corporation Ltd., Consolidated Mining and Smelting Wedge Mine, and Heath Steele Mines Limited sponsored a luncheon for the delegates Friday at noon.

The highlight of the banquet was the presentation of the Province of New Brunswick safety trophies by the Hon. K. J. Webber, Minister of Labour; R. P. Campbell, Deputy Minister of Labour; and H. S. Howcroft, on behalf of the Premier to the firms which had the best safety record for the year. The winners were: Group 1 (over 800,000 man-hours) Bathurst Paper Ltd. Group 2 (200,000 to 800,000 man-hours) Canadian Gypsum Company Ltd. Group 3 (60,000 to 200,000 man-hours) MacDonald Paving and Construction Ltd.

The 1967 convention is planned for April 27 and 28 in Fredericton.

ROAD BUILDERS CONTEST

We worked very closely with the New Brunswick Road Builders' Association during their National Road Builders Safety Competition. Plans for the contest program were worked out with the Association and the Public Works Department. A formal kickoff ceremony was held at the job site of a road construction project and was attended by many governmental dignitaries and Association members. Nearly 100 workmen of the project left their work to attend the ceremony.

The contest was held August 8-19, 1966, and although there was a much greater number of man-hours reported, less accidents occurred than the year previous. The frequency rate for the New Brunswick group during this period had decreased steadily from two years ago when the first serious effort was made. Two years ago the rate was 40; last year 27; and this year only 16.9.

Everyone was pleased with the cooperation and effort put forth by those participating and in the results achieved.

SERVICES

Both the quality and the quanity of our services improved during the year. We are now making a singificant contribution to the improvement of safe working habits and conditions in industry with the safety training provided to groups of supervisors and employees.

The following statistics reflect part of our activities. Over 3,300 visits were made to employers. Eighty-eight management courses were conducted for more than 1,300 supervisors and foremen. Over 360 employee courses were conducted with an attendance of over 10,700.

During the year the safety films listed below were added to our film library, and extra copies of films which are in great demand and used often were also purchased. Several of the films are used in connection with safety programs devised for employees and supervisors and are used frequently by our staff.

New films: Pick Your Safety Target
It Didn't Have to Happen
It's Up To You (French)
So You are New Around Here
The Industrial Weightlifter
Everything to Lose
Hand Tool Safety Course (Filmstrip series)

There were 615 showings of our films during the year to an audience of over 22,200. This is almost double the previous year.

We continued to assist the staff of the Technical Institute in Moncton and the various trade schools and vocational schools in the Province in the training of their students in the fundamentals of industrial safety. We also provided training for the industrial teaching staff. This is becoming a heavy responsibility and initial discussions have been held with education officials to work out a program that they can carry out themselves.

We have also provided safety instruction for several courses given by the Department of Labour under their various training programs.

GENERAL COMMENTS

Despite extended effort, injuries in industry were the highest in number of any year to date. While this picture is very disturbing it must be related to a substantial increase in man-hours worked in our Province during the year and on that basis shows a related picture of a 1.8 per cent improvement over last year. However, it still points up the necessity for a keener awareness and increased training in safety and a vigorous program by our staff is planned for the coming year.

Over-all we should be somewhat encouraged by the increased and more widespread interest in safety among management and labour in the Province. Some firms that in the past have been very reluctant to initiate safety programs have started to show real interest and to put forth concerted effort in an attempt to decrease their injury record. Firms who have co-operated in the past have continued with increased effort to minimize their number of employee accidents.

Training programs have been started in many new firms and we are very hopeful that the coming years will see a significant impact made upon the injury record in industry. Several new programs have been drafted and will be used to train employees in the correct methods of working. We must, however, recognize that employers still require some real persuasion to elicit their cooperation in safety programs.

We have obtained permission to teach the Neil George Method of Safety and we are presently revising it so that it can be applied to all industries. This is a method of procedure that if followed by supervisors will surely result in a decrease of injuries. It has been proved in the mining industry and we hope we can apply it as successfully throughout all the industries of the Province. This will be one of our projects for 1967.

The New Brunswick Forest Industries Safety Association Inc. continued to work very closely with our Council and we are grateful for the contribution they have made to safety in their field. A report on their activities for the year 1966 follows.

NEW BRUNSWICK FOREST INDUSTRIES SAFETY ASSOCIATION INC.

This has been a very active season in woods and sawmill operations, a considerable number of new operators have entered the field and some of the large operators have opened up new operating areas as well as the addition of several new sawmills.

An extra field representative was employed and began work in February. This brought the field staff to a total of three which is considered adequate at the present time as Mr. Pond, the Manager, continues a very active program of visitation.

Their men have continued to make direct contact with the employers in their districts and to follow through with whatever programs these people are willing to implement. During the year the field men have made 741 visits to operators, 93 visits to woods operations, 113 visits to sawmills, conducted or taken part in 59 meetings with a total attendance of 1969 people.

All members of their staff attended the New Brunswick Industrial Safety Council meeting in Bathurst in May and also the Quebec Pulp and Paper Safety Association meeting at Sherbrooke, Quebec in September. Two of their field men attended a three week course in Moncton conducted by the New Brunswick Department of Labour for instruction in training and teaching techniques. They reported this as being very helpful to them.

During the spring period, ten Regional Meetings were held with employers at various locations throughout the Province. It is considered this is a part of their regular annual program for that time of the year.

Their Annual Meeting which was held in Bathurst in conjunction with the annual Industrial Safety Council's meeting has been previously reported on. This meeting was poorly attended by representatives of the woods industry and it was agreed at that time by the Directors of both associations that separate meetings would be held the following year.

The methods of larger woods operations and a few smaller ones are changing and various degrees of mechanization are taking place. In this connection, field men have assisted and taken part in some of the training sessions for skidder operators which are being conducted by the provincial Departments of Labour and Education. They have also attempted to keep in close touch with these new operating developments and the trends of new hazards created by the change of work methods and equipment.

Safety equipment such as hard hats, knee pads and safety shoes which are required by the Safety Code have been well introduced and are in general use on most operations. The degree of acceptance by workmen is pretty much in the order of which we have named these three, except for a few small operators with poor supervision, the safety hat is now in general use with woods workers.

An early problem of a source of supply locally for safety equipment has greatly improved. Hard hats are now generally available at local stores across the Province and safety shoes are carried in many of the larger stores. There are only two central distributors for safety knee pads but this situation is being helped out by many of the larger operators who keep a good supply on hand and make them available at cost price to the smaller employers in their area. This also generally applied to the other safety equipment mentioned and we are very appreciative of this cooperation.

Mr. Pond has continued to carry on a system of sending out forms to employers to report days worked and number of accidents both in sawmills and in woods operations. This has continued to grow and at the end of December 105 employers were reporting for woods operations and 40 for sawmills. Although some employers are not very consistent and their reports often come in late, again many operators have an on and off operating schedule which prevents monthly continuity. However, the increase which is evident in the number of reports received indicates that this is serving a useful purpose.

They now have the Logging Safety Code in both French and English in pamphlet form and have changed the small calendar cards which they have been carrying for two years, previous to the passing of the Code, so that it now includes the complete Safety Code. They have distributed copies of Code pamphlets to all operators in sufficient numbers for their supervisory personnel and to be placed on camp bulletin boards. Also the Code has been photographed on slides which are used at camp meetings and discussions with workmen.

Three Directors meetings were held during the year, one in March, one in April and one in October. The By-Laws were changed to provide for a representative of labour on the Board of Directors, this appointment went to Mr. Laureat Drapeau.

There are still a great many operators who are taking a negative approach to safety and it appears that more strict enforcement of the Safety Code will be necessary to bring these operators to a better awareness. Persuasion, reason and education have been helpful but stronger means of conviction are indicated to create a situation where they can work more effectively with them.

ACKNOWLEDGEMENTS

As in past years, we acknowledge the fine support and co-operation we received from the Workmen's Compensation Board, The Department of Labour, Data Processing Branch, Audio Visual Services and other government departments. We are grateful for their services.

EXHIBIT "A"

NEW BRUNSWICK INDUSTRIAL SAFETY COUNCIL

BALANCE SHEET

AS OF 31st DECEMBER 1966

ASSETS

Cash in bank	$ 23,808.31
Travelling advances receivable	700.00
	$ 24,508.31

LIABILITIES AND EQUITY

Accounts payable	$ 999.79	
Due to Province of New Brunswick pension fund	10,589.75	$ 11,589.54
Equity:		
Balance, 1st January 1966	5,727.63	
Excess of revenue over expenditure for the year— Exhibit "B"	7,191.14	12,918.77
		$ 24,508.31

Approved on behalf of the Council

H. S. HOWCROFT

R. P. CAMPBELL

Note: Office and other equipment acquired by the Council at a cost of $12,890.89 is not included in the assets above.

AUDITORS' REPORT

We have examined the balance sheet of the New Brunswick Industrial Safety Council as of 31st December, 1966, and the statement of revenue and expenditure for the year ended on that date.

We have received all the information and explanations we have required and, we report that, in our opinion, the above balance sheet and related statement of revenue and expenditure fairly present, respectively, the financial position of the Council as of 31st December, 1966, and the financial results of its operations for the year then ended, according to the best of our information, the explanations given to us and as shown by the accounting records of the Council.

REEVEY, BLACKMORE, BURNHAM, LAWS & PAGE
Chartered Accountants

Fredericton, N.B.
31st January, 1967.

EXHIBIT "B"

NEW BRUNSWICK INDUSTRIAL SAFETY COUNCIL

STATEMENT OF REVENUE AND EXPENDITURES

FOR THE YEAR ENDED 31st DECEMBER 1966

Revenue:			
Grants—Workmen's Compensation Board of the Province of New Brunswick		$205,704.37	
Interest income		202.63	$205,907.00
Expenditure:			
Salaries		72,663.70	
Employee benefits		6,129.22	
Travelling		8,838.32	
Office supplies		1,649.62	
Training and education supplies		8,248.54	
Directors—Remuneration	$ 3,087.50		
—Expenses	2,201.85	5,289.35	
Car expenses—Rental	11,446.75		
—Gas and oil	3,607.46		
		15,054.21	
Rent		3,300.00	
Telephone and lights		1,131.57	
Postage		1,075.18	
Professional fees		175.00	
Miscellaneous		1,001.56	
Convention expenses, net		469.61	
Mass media		21,298.48	
Total ordinary		146,324.36	
Equipment—Training and education		2,995.81	
Grant—New Brunswick Forest Industries Safety Association		49,395.69	198,715.86
Excess of revenue over expenditure for the year—To Exhibit "A"			$ 7,191.14

NEW BRUNSWICK
INDUSTRIAL SAFETY COUNCIL

STATISTICAL REPORT—1966

STATISTICAL REPORT—1966

INTRODUCTION

The following statistical report is based on information supplied to the New Brunswick Industrial Safety Council by the Workmen's Compensation Board of the Province.

The report attempts to summarize and define in a concise fashion the pertinent aspects of industrial injuries which occurred in the province during the year 1966. As in the past the compilation of the data has required the use of estimates; where this has been necessary the source is referred to in a footnote.

The compilation of injury statistics is normally complicated by the great volume of material available and questions of what to incorporate in a report of this nature and what to eliminate becomes a critical consideration. In such situations, the practical uses to which the data may be put are the governing factors.

Much of the material which follows in the body of the report is based on a computer oriented tabulation of each and every injury; in some areas however, a sampling procedure was used to obtain the distribution. A case in point is the sub-section on the causative agency in the various classification of causes. The procedure followed was to select a weighted sample between industrial classes from which a further random sample was selected.

Direct costs which constitute a necessary part of this report do not include such costs as are attributable to administration, rehabilitation, upgraded pensions or other amounts set aside to meet unreported claims.

Continuing modifications in our program in the year 1966 have resulted in the tabulation of new information, some of which will not appear until publication of comparative figures is possible in the 1967 report. As in the 1965 report, we have included tables and charts which illustrate the relative severity and costs as represented by the averages for the causes, regions, and natures of those injuries reported in the summary. These are referred to in Tables VII, IX and X.

INDUSTRIAL INJURIES IN NEW BRUNSWICK

I. FREQUENCY OF INJURY

During the year 1966 the number of industrial injuries occurring in the province reached a figure of 21,104, an increase of 502 over 1965. This compares to an increase of 1,006 for 1965 over the year 1964. In terms of percentage increase over the previous year we have a 2.5% increase compared to 5.1% in 1965.

The frequency of injury expressed as a ratio to assessed payroll indicates that this year all industry incurred one injury for every $16,000 of payroll; compared to last years' figure of one injury for every $14,000 of payroll, and the 1964 ratio of one per $13,950. Thus while the differences as calculated are slight, they would appear to indicate that the rapid rise in the frequency of injuries of past years is showing some signs of slowing down.

Reference to Table I affords a comparison of the frequency of industrial injuries related to the employed labour force for the years 1966 through 1964. The percentage of the employed labour force involved in injuries in 1966 at 10.9% represents again a slight improvement when compared to the corresponding figures of 11.1 for the years 1965 and 1964.

TABLE I

Year	*No. of Injuries*	*Employed Labour Force* (1)	*Injury % of E. L. F.*	*Injury Rate per M. Dollars of Payroll*
1966	21,104	194,500	10.9	.064
1965	20,602	185,000	11.1	.072
1964	19,596	177,000	11.1	.071

Footnote
(1) Estimates—Department of Labour, New Brunswick

II. DIRECT COSTS OF INDUSTRIAL INJURIES

The direct costs of injuries sustained in the year 1966 as reported to the Council amounted to $3,102,065—an increase of 16.8% over the 1965 figure of $2,655,655. The expenditure of $13 for every member of the employed labour force in 1965 rose this year to $16. This large increase in costs over 1965 is in part due to the increase in the percentage of lost time injuries from approximately 37% last year to slightly more than 42% in 1966.

Table II lists the direct costs for all injuries reported in 1966 by industrial class. By way of comparison, the corresponding costs for 1965 are included in brackets. Increases in costs occurred in all classes with the exception of the transportation group and the provincial government with percentage decreases of 4.7 and 4.3 respectively. The most significant increase in costs occurred in the construction industry with a 42.4% increase which saw the cost of injuries rise from $707,134 in 1965, to $1,007,277. In terms of all industry the construction class accounted for the expenditure of one dollar in every three this year, compared to approximately one of every four in 1965.

During the year 1966, the total number of working days lost as a result of injuries in the province was 187,530—of which approximately 35,000 days were allocated to injuries incurred in the years prior to 1966.

TABLE II

(2) Direct costs and actual number of working days lost by industrial classification for Injuries incurred in 1966.

Class	*Direct Cost in Dollars 1966*	*1965*	*Per Cent Increase (Decrease)*	*Number of lost-time injuries 1966*	*Average Direct Cost per Injury in Dollars*(3)	*Average Direct Cost of Minor Injuries*(4)
Mining	$ 215,475	$ 208,771	3.2	543	234	17
Forestry	725,940	672,907	7.9	2,054	279	20
Manufacture and Sale	714,072	657,211	8.7	2,886	124	13
Construction	1,007,277	707,134	42.4	2,227	210	15
Transportation	156,886	164,596	(4.7)	352	277	16
C.N.R.	94,771	81,527	16.2	167	226	23
Federal Government	74,514	48,297	54.3	254	154	15
Provincial Government	113,130	118,212	(4.3)	363	153	16
Total	$3,102,065	$2,655,655	16.8	8,846	211	15

Footnotes

(2) Direct costs do not include such items as upgrading of pensions, administration or allocations to reserve or unreported claims.
(3) Average represents only average costs of total temporary disabilities for injuries reported during the year.
(4) Costs of minor injuries paid by Compensation Board.

III. SEVERITY OF INDUSTRIAL INJURIES

Fatalities—During the year 1966, a total of 47 deaths resulting directly from industrial injuries were reported to the Council. This is the worst year ever recorded in the province, and is 13 above the figure of 34 which occurred in 1965.

The 1966 figure is highly significant when the ratio of fatalities to injuries at 1 in every 450 is compared to an average ratio in past years of 1 fatality for every 575 injuries.

The median age at death for the group was approximately 40 years and resulted in the loss of 820 working years.

Reference to Table III shows quite clearly the areas of concern.

TABLE III

Agency Involved in Fatal Injuries—Comparison 1966/1965

Agency	*Mining*		*Forestry*		*Manufacture and Sale*		*Construction*		*Transportation*		*Other 7, 8, 9*		*Total*	
	1966	*1965*	*1966*	*1965*	*1966*	*1965*	*1966*	*1965*	*1966*	*1965*	*1966*	*1965*	*1966*	*1965*
Motor Vehicle.	—	—	1	2	6	4	2	2	—	—	2	2	11	10
Motorized Equipment...	2	—	—	—	—	1	—	4	—	2	—	1	2	8
Materials.....	—	—	2	3	2	2	4	—	1	—	—	—	9	5
Falls.....	1	—	1	—	—	—	5	3	—	—	2	—	9	3
Electrical Contact.....	—	—	—	—	—	—	3	1	—	—	—	—	3	1
Miscellaneous.	1	—	2	2	—	1	3	—	—	4	1	—	7	7
Total	4	—	6	7	8	8	17	10	1	6	5	3	41*	34

* Does Not include 6 fatal injuries in process by the Workmen's Compensation Board.

CONCLUSION

The total number of injuries reported in 1966 when compared to the same figures for the previous years appears to indicate that tangible results have accrued. The ratio of industrial injuries to the employed labour force which constitutes one of the primary standards of evaluation dropped from a figure of 11.1% in 1965 and 1964 to approximately 10.9% this year.

Table II of the report considers the costs of injuries for each of the major industries in the province. While increases over last year were recorded in all groups with the exception of two classes, the one class which is of concern is the construction industry with an increase of 42.4% in costs over last year.

Since 1964 the direct cost of industrial injuries in the construction industry has risen from $463,741 to a figure of $1,007,277; an increase of 117% compared to an increase of 3.4% for all industry over the same period.

The average number of days lost as a result of work injuries in 1966 was 7.6 compared to 8.5 with average costs respectively of $192 and $190.

Table VIII compares the frequency of injury by cause and class, the results of which are consistent with those of 1965 and 1964. 40% of all injuries result from workmen being struck by objects in the work area, 23% from falls and slips and 15% caused by striking against objects.

Figures 3 and 4 illustrate that the nature and region of injury in 1966 scarcely differs from patterns which have been established in the past years.

SUMMARY OF CONCLUSIONS

1. There were 47 fatal injuries reported in 1966.
2. The absolute frequency rate of injury expressed as a percentage of employed labour force for 1966 at 10.9% represents an improvement over the rate of 11.1% recorded in 1965.
3. The average injury rate in the province—.064, down from the 1965 figure of .072 per thousand dollars of payroll.
4. A total of 187,529 working days lost due to injuries in 1966 down from the 1965 figure of 202,423 days.
5. The average number of working days lost due to work injuries was computed to be 7.6 with associated costs of $192.00. This compares to the corresponding values of 8.5 and $190.00 recorded in 1965.
6. Increased frequency of injury in construction, mining, manufacture and sale and Class 9 (Table V).
7. Major causes of industrial injuries follow a pattern similar to that established in previous years.

TABLE IV

PERCENTAGE DISTRIBUTION BY AGENCY INVOLVED

Agency Involved	*Class No. 1*	*2*	*4*	*5*	*Average All Classes*
Materials	21.1 (20.2)	23.5 (25.1)	34.7 (36.0)	42.4 (43.0)	31.5 (29.6)
Objects in Work Area	*	2.2 (1.2)	7.9 (3.1)	3.8 (4.0)	2.3 (1.8)
Slippery Surfaces	4.4 (7.9)	5.3 (5.0)	5.1 (7.9)	8.0 (7.6)	5.7 (7.1)
Tools and Machinery	11.1 (13.4)	22.8 (22.7)	6.1 (10.7)	11.2 (10.0)	14.0 (14.6)
Flying Particles	9.0 (7.5)	8.0 (5.4)	10.1 (14.4)	9.3 (10.0)	9.6 (9.2)
Falling objects other than Materials	16.3 (13.2)	5.4 (3.4)	*	*	5.8 (3.9)
Other	38.1 (37.2)	32.8 (37.2)	36.1 (27.9)	25.3 (25.4)	31.1 (33.8)
Total	100.0	100.0	100.0	100.0	100.0

Class 3—Manufacture and Sale not considered due to highly variable environments.

( ) include corresponding values for 1965.

* Smaller than 1 per cent.

Class 3—Manufacture and Sale not considered due to highly variable environments.

TABLE V

COMPARISON OF NUMBER OF INJURIES 1966—1965 BY CLASS

1965 Actual Number of Injuries. 1966 Expected and Actual

Class	*NUMBER OF INJURIES* (*1*) *1965 (Actual)*	(*2*) *1966 (Expected)*	(*3*) *1966 (Actual)*	*DIFFERENCE* (*4*) (*2*) — (*1*)	(*5*) (*3*) — (*2*)
Mining	1,026	1,002	1,064	(—24)	62
Forestry	3,948	4,419	3,617	471	(—802)
Manufacture and Sale	7,652	7,668	7,727	16	54
Construction	5,289	5,175	5,933	—114	758
Transportation	833	880	785	47	(—95)
7	582	606	505	24	(—101)
8	547	599	580	52	(—19)
9	725	755	893	30	138
Total	20,602	21,104	21,104	502	—

TABLE VI **CLAIMS PER COST COMPARISON**

Class	1966 Claims	1966 Days Lost	1966 Cost	PRIOR YEARS Claims	PRIOR YEARS Days Lost	PRIOR YEARS Cost	TOTAL ALL YEARS Claims	TOTAL ALL YEARS Days Lost	TOTAL ALL YEARS Cost
1	1,064	10,060.5	$ 215,475	191	1,959.5	$ 78,563	1,255	12,020.0	$ 294,038
2	3,617	39,223.6	725,940	857	10,967.5	522,412	4,474	50,191.1	1,248,352
3	7,727	41,013.2	714,072	1,182	6,895.0	393,563	8,909	47,908.2	1,107,635
4	5,933	40,954.0	1,007,277	965	9,325.5	440,489	6,898	50,279.5	1,447,766
5	785	9,053.0	156,886	181	2,200.5	110,005	966	11,253.5	266,891
7	505	3,168.0	94,771	116	892.0	45,642	621	4,060.0	140,413
8	580	3,864.5	74,514	84	797.0	27,438	664	4,661.5	101,952
9	893	5,199.5	113,130	126	1,956.5	42,929	1,019	7,156.0	156,059
TOTAL	21,104	152,536.3	3,102,136	3,702	34,993.5	1,661,041	24,806	187,529.8	4,763,177

TABLE VII AVERAGE WORKING DAYS LOST AND COST PER INJURY—CAUSE BY CLASS—1966

Cause		Class 1	2	3	4	5	7	8	9	Average
Striking against, stepping on objects	Days Lost	4.4	5.5	3.3	3.1	1.5	2.8	5.3	3.1	3.5
	Cost	$ 65	$ 124	$ 45	$ 51	$ 29	$ 57	$ 88	$ 40	$ 56
Struck by objects	Days Lost	8.4	10.8	3.6	6.6	11.4	4.3	4.1	5.2	6.8
	Cost	$ 151	$ 197	$ 70	$ 116	$ 178	$ 216	$ 56	$ 132	$ 126
Caught in, on, or between	Days Lost	9.4	12.7	6.5	8.4	12.2	5.6	10.0	4.6	8.6
	Cost	$ 126	$ 250	$ 134	$ 180	$ 325	$ 125	$ 483	$ 60	$ 181
Collision or wrecks	Days Lost	27.8	22.5	12.5	11.1	6.5	15.6	1.8	5.3	12.2
	Cost	$3,340	$1,035	$ 985	$1,342	$ 126	$ 671	$ 30	$ 106	$ 970
Falls and Slips	Days Lost	14.1	13.2	9.3	10.1	14.8	8.2	7.3	9.0	10.5
	Cost	$ 347	$ 222	$ 125	$ 274	$ 224	$ 150	$ 122	$ 217	$ 206
Temperature Extremes and Explosion	Days Lost	8.2	8.2	4.4	4.3	3.1	2.8	3.0	3.9	4.7
	Cost	$ 187	$ 262	$ 67	$ 126	$ 51	$ 44	$ 46	$ 51	$ 107
Inhalation	Days Lost	6.7	2.9	3.5	3.3	—	1.9	2.9	4.9	3.5
	Cost	$ 73	$ 54	$ 50	$ 55	—	$ 40	$ 60	$ 75	$ 54
Electrical Contact	Days Lost	—	25.1	1.9	9.9	—	—	24.7	—	10.3
	Cost	—	$ 536	$ 34	$1,631	—	—	$ 486	—	$1,084
Over Exertion	Days Lost	9.6	9.4	6.2	6.5	12.8	14.4	13.8	7.7	7.6
	Cost	$ 127	$ 148	$ 90	$ 115	$ 219	$ 341	$ 250	$ 126	$ 124
Miscellaneous	Days Lost	10.3	3.6	4.3	0.9	—	—	4.1	2.5	3.0
	Cost	$ 411	$ 37	$ 115	$ 23	$ 14	—	$ 90	$ 36	$ 68
All Causes	Days Lost	9.6	11.2	5.4	7.3	11.6	6.5	7.0	7.0	7.6
	Cost	$ 234	$ 279	$ 124	$ 210	$ 276	$ 226	$ 154	$ 153	$ 192

TABLE VIII **NUMBER OF INJURIES—CAUSE BY CLASS—1966**

Cause	Class Number 1 No.	%	2 No.	%	3 No.	%	4 No.	%	5 No.	%	7 No.	%	8 No.	%	9 No.	%	Total No.	%
Striking Against and Stepping on	118	11.1	337	9.3	1,550	20.1	870	14.7	54	6.9	65	12.9	72	12.4	120	13.4	3,186	15.1
Struck By	446	41.9	1,930	53.4	2,648	34.3	2,330	39.3	370	47.1	193	38.2	156	26.9	307	34.4	8,380	39.7
Caught in, on, or between	137	12.8	305	8.4	661	8.6	352	5.9	115	14.7	50	9.9	33	5.7	56	6.3	1,710	8.1
Collisions and Wrecks	8	0.8	16	0.4	80	1.0	53	0.9	8	1.0	14	2.8	6	1.0	27	3.0	213	1.0
Falls and Slips	225	21.2	758	21.0	1,574	20.4	1,470	24.8	192	24.5	119	23.6	210	36.2	225	25.2	4,774	22.6
Temperature Extremes, Explosions	51	4.8	51	1.4	345	4.5	338	5.7	6	0.8	13	2.6	21	3.6	36	4.0	861	4.1
Inhalation and Industrial Disease	18	1.7	43	1.2	167	2.2	96	1.6	5	0.6	7	1.4	12	2.1	15	1.7	363	1.7
Contact with Electric Current	—	—	7	0.2	15	0.2	41	0.7	—	—	—	—	3	0.5	1	0.1	67	0.3
Over Exertion	59	5.5	155	4.3	610	7.9	346	5.8	33	4.2	44	8.7	53	9.1	66	7.4	1,366	6.5
Miscellaneous	2	0.2	15	0.4	72	0.9	37	0.6	2	0.3	—	—	14	2.4	40	4.5	183	0.9
Total	1,064		3,617		7,722		5,933		785		505		580		893		21,103	

TABLE IX **AVERAGE DAYS LOST AND COST PER INJURY BY NATURE, BY CLASS—1966**

Nature		Class 1	2	3	4	5	7	8	9	Average
Amputations	Days Lost	50.7	41.2	24.3	28.2	64.8	—	62.0	32.0	32.9
	Cost	$5,424	$1,730	$1,271	$1,146	$5,038	—	$6,529	$ 825	$1,722
Scalds	Days Lost	6.9	11.2	4.6	8.7	—	3.4	5.9	4.5	6.4
	Cost	$ 120	$ 338	$ 67	$ 314	$ 11	$ 50	$ 105	$ 59	$ 164
Cuts	Days Lost	7.6	8.7	3.8	4.3	6.3	2.4	2.8	3.7	5.1
	Cost	$ 112	$ 138	$ 49	$ 80	$ 90	$ 59	$ 42	$ 54	$ 79
Sprains	Days Lost	11.6	12.9	6.4	8.4	12.9	9.3	8.8	8.0	8.6
	Cost	$ 154	$ 170	$ 86	$ 140	$ 183	$ 165	$ 147	$ 110	$ 126
Fractures	Days Lost	25.3	28.1	22.3	32.3	31.3	19.5	17.9	14.7	26.5
	Cost	$ 646	$ 504	$ 472	$ 714	$ 426	$ 949	$ 246	$ 372	$ 555
Eyes	Days Lost	1.2	2.4	0.7	0.7	2.1	0.2	0.4	1.3	1.0
	Cost	$ 27.	$ 140	$ 26	$ 58	$ 230	$ 12	$ 12	$ 22	$ 55
Hernia	Days Lost	30.1	21.0	28.9	27.7	37.0	39.0	28.9	25.8	28.6
	Cost	$ 563	$ 386	$ 516	$ 574	$ 667	$1,112	$ 698	$ 524	$ 570
Occupational Disease	Days Lost	—	35.0	9.8	3.6	—	9.0	3.8	33.0	9.1
	Cost	—	$ 330	$ 126	$ 71	—	$ 143	$ 64	$ 470	$ 123
N.E.C.	Days Lost	4.9	1.2	2.4	1.1	0.7	13.3	3.5	1.3	1.8
	Cost	$ 607	$ 220	$ 131	$ 281	$ 29	$ 199	$ 76	$ 403	$ 222
All Natures	Days Lost	9.6	11.2	5.4	7.3	11.6	6.5	7.0	7.0	7.6
	Cost	$ 234	$ 279	$ 124	$ 210	$ 276	$ 226	$ 154	$ 153	$ 192

TABLE X AVERAGE DAYS LOST AND COST PER INJURY BY REGION AND CLASS—1966

Region		Class *1*	*2*	*3*	*4*	*5*	*7*	*8*	*9*	*Average*
Eye	Days Lost	1.2	2.3	0.7	0.7	2.1	0.2	0.4	1.3	1.0
	Cost	$ 27	$ 139	$ 26	$ 58	$ 230	$ 12	$ 12	$ 22	$ 55
Other Upper Extremities	Days Lost	7.3	12.6	5.2	7.4	12.2	5.0	16.0	4.8	7.9
	Cost	$ 114	$ 295	$ 71	$ 121	$ 168	$ 28	$ 257	$ 72	$ 145
Ear	Days Lost	8.8	1.1	1.5	1.0	—	—	—	3.4	1.7
	Cost	$ 183	$ 37	$ 39	$ 25	$ 14	$ 20	$ 10	$ 82	$ 44
Feet	Days Lost	9.1	13.3	6.9	6.4	17.2	7.7	5.1	5.6	8.5
	Cost	$ 117	$ 168	$ 82	$ 98	$ 213	$ 129	$ 68	$ 70	$ 111
Head and Neck	Days Lost	3.4	6.8	3.0	23.9	4.0	6.4	3.3	6.5	9.7
	Cost	$ 655	$ 293	$ 240	$ 359	$ 83	$ 740	$ 61	$ 111	$ 303
Toes	Days Lost	11.9	10.9	7.1	8.6	16.3	7.8	7.2	7.1	9.1
	Cost	$ 140	$ 127	$ 80	$ 130	$ 182	$ 105	$ 91	$ 81	$ 114
Back	Days Lost	12.1	13.3	8.6	10.5	14.8	13.8	11.8	9.1	10.6
	Cost	$ 189	$ 184	$ 129	$ 360	$ 241	$ 322	$ 209	$ 123	$ 215
Other Lower Extremities	Days Lost	12.7	14.2	8.3	10.0	18.3	7.8	4.6	9.5	10.9
	Cost	$ 180	$ 184	$ 119	$ 218	$ 413	$ 132	$ 69	$ 129	$ 176
Chest	Days Lost	13.0	11.1	6.2	6.1	7.5	2.5	6.6	6.9	7.9
	Cost	$ 162	$ 243	$ 63	$ 166	$ 85	$ 37	$ 97	$ 79	$ 144
Internal Injuries	Days Lost	23.4	26.9	14.4	16.2	28.6	20.9	16.0	6.0	17.6
	Cost	$1,179	$1,235	$ 609	$1,239	$ 748	$ 359	$ 307	$2,042	$1,006
Trunk	Days Lost	13.7	12.7	13.6	11.9	16.8	16.0	11.2	18.6	13.3
	Cost	$ 245	$ 205	$ 218	$ 232	$ 300	$ 381	$ 268	$ 358	$ 237
Miscellaneous	Days Lost	0.7	—	—	—	—	—	—	1.0	0.2
	Cost	$ 38	$ 27	$ 22	$ 26	$ 25	$ 24	$ 14	$ 33	$ 25
Hands	Days Lost	13.6	10.3	4.9	5.4	9.3	5.1	4.1	4.8	6.3
	Cost	$ 328	$ 138	$ 59	$ 92	$ 108	$ 95	$ 63	$ 57	$ 91
Fingers	Days Lost	9.6	11.1	4.4	5.7	7.8	3.2	7.0	3.3	5.9
	Cost	$ 134	$ 194	$ 73	$ 112	$ 153	$ 75	$ 253	$ 52	$ 106
All Regions	Days Lost	9.6	11.2	5.4	7.3	11.6	6.5	7.0	7.0	7.6
	Cost	$ 234	$ 279	$ 124	$ 210	$ 276	$ 226	$ 154	$ 153	$ 192

FIGURE 1

Distribution of Industrial Injuries 1964, 1965, and 1966 by Class Expressed as a Percentage of All Injuries

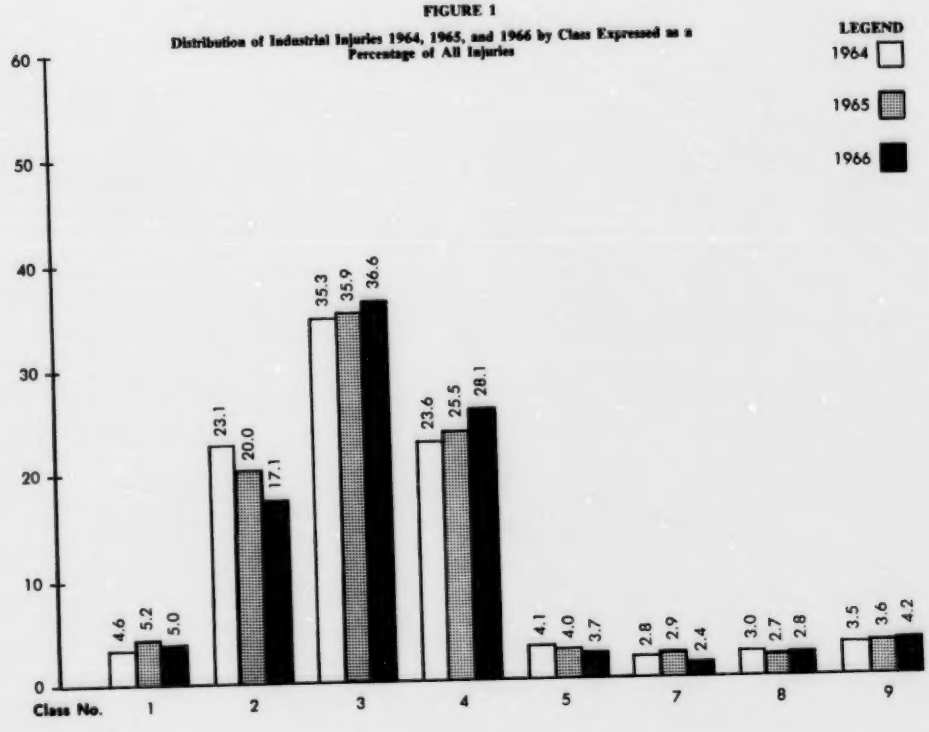

FIGURE 2

Causes of Injury Expressed as a Percentage of Total—1964, 1965, 1966.

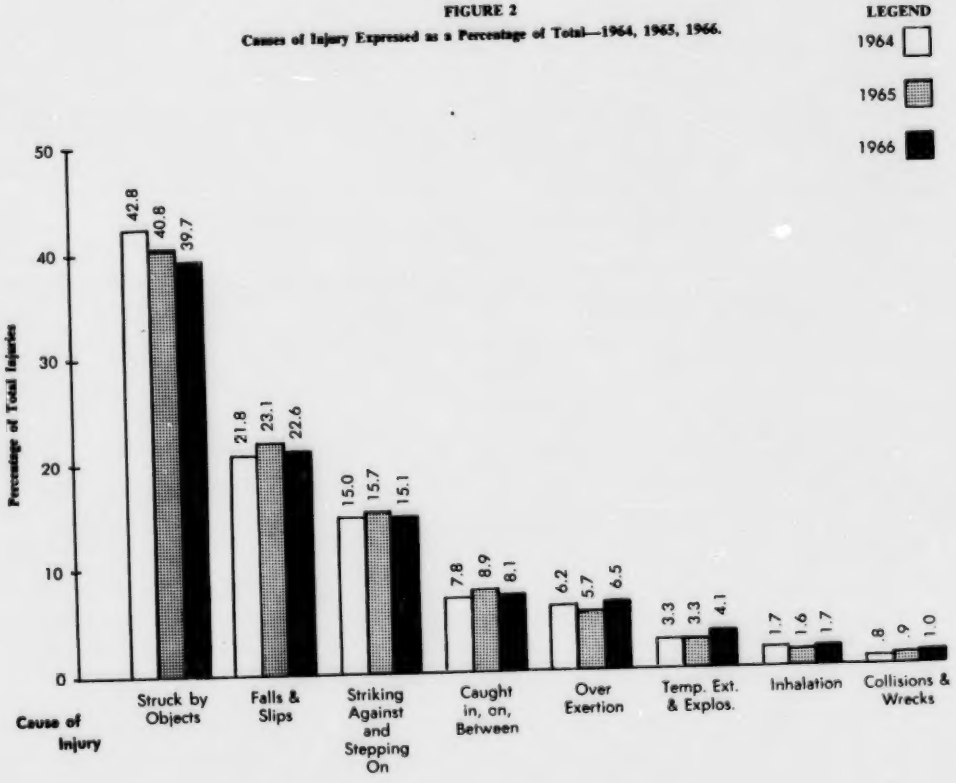

FIGURE 3

Nature of Injury Expressed as a Percentage of All Injuries—1964, 1965, 1966

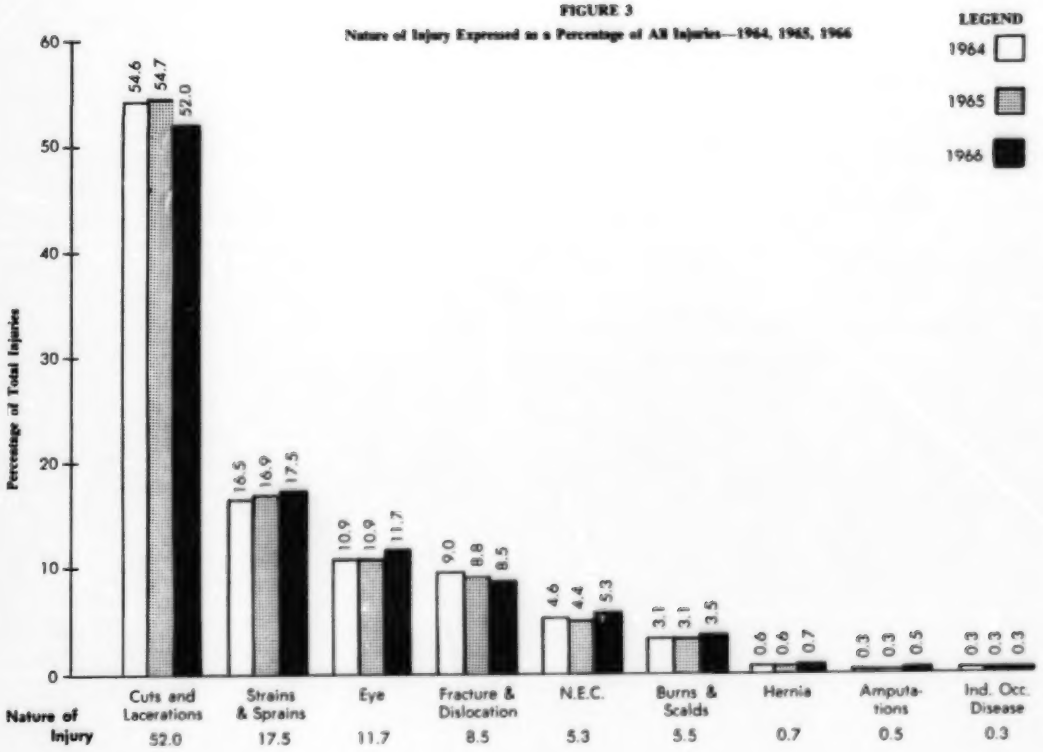

FIGURE 4

Region of Injury Expressed as a Percentage of All Injuries—1964, 1965, 1966

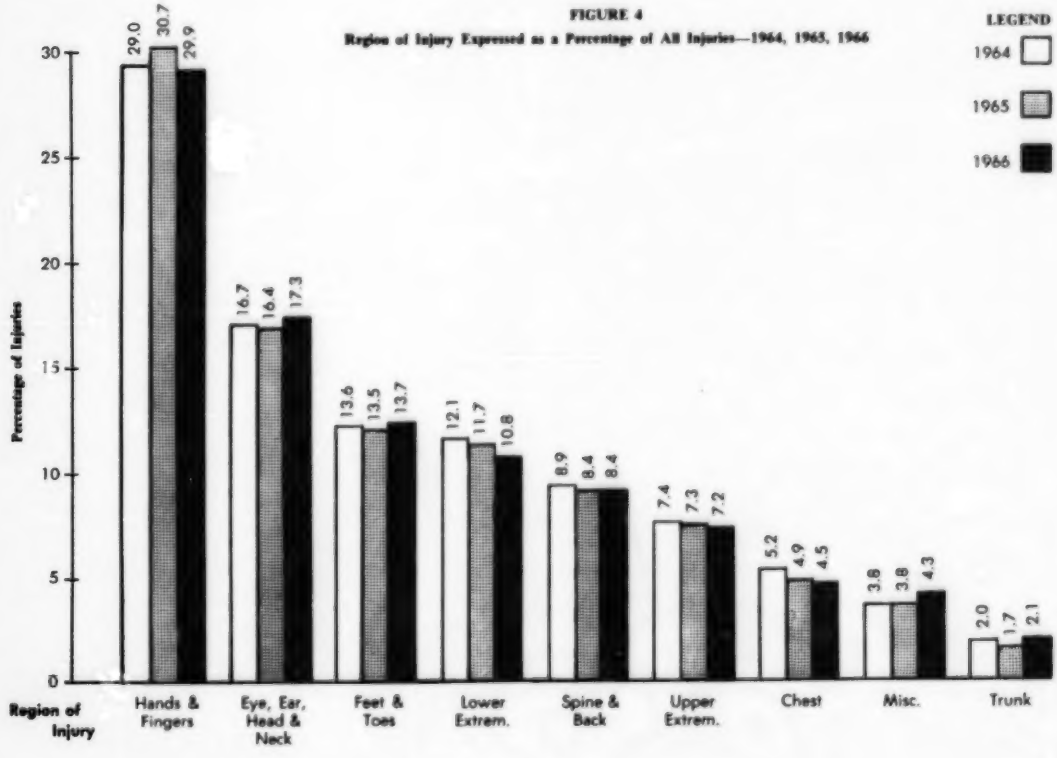

FIGURE 5

Average Number of Working Days Lost and Direct Cost By Cause of Injury

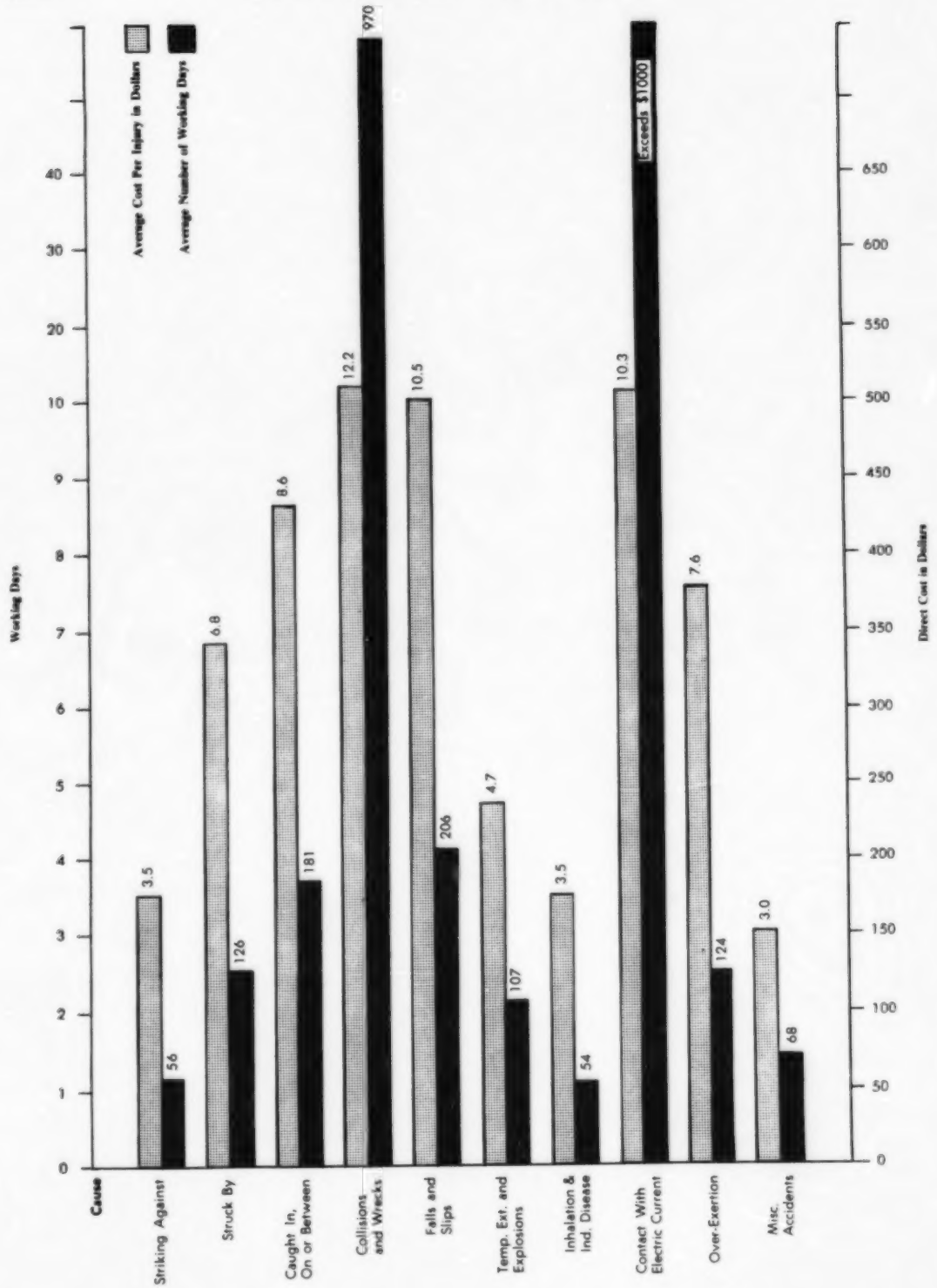

FIGURE 6 Average Number of Working Days Lost and Direct Cost By Nature of Injury